

APR 10 2019



100 GROVE ST. | WORCESTER, MA 01605

April 10, 2019

PLANNING BOARD GRAFTON, MA

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**Subject: The Grafton Public Library, 35 Grafton Common
Special Permit, Site Plan, Wetland Regulations and Stormwater
Regulations Review**

Dear Joe and Conservation Commissioners:

We received the following documents on February 20, 2019:

- Plans entitled The Grafton Public Library, 35 Grafton Common, Grafton, MA dated January 31, 2019, prepared by Drumney, Rosane, Anderson, Inc. and CDW Consultants, Inc. for the Town of Grafton. (15 sheets)
- Bound document entitled Stormwater Management Report for Town of Grafton Public Library, 35 Grafton Common, Grafton, MA dated January 29, 2019, prepared by CDW Consultants, Inc.
- (Traffic) memorandum from Weston & Sampson to Drumney, Rosane, Anderson Inc. dated February 11, 2019 re: Grafton Town Library Expansion-Traffic Study Requirements Waiver Request.

Graves Engineering, Inc. (GEI) has been requested to review and comment on the plans' conformance with applicable "Grafton Zoning By-Law" amended through October 15, 2018; Massachusetts Department of Environmental Protection (MassDEP) Stormwater Handbook and standard engineering practices on behalf of the Planning Board. GEI has also been requested to review and comment on the documents' conformance with applicable "Grafton Wetland Regulations" amended through May 2017 and Grafton Conservation Commission "Regulations Governing Stormwater Management" dated May 28, 2013 on behalf of the Conservation Commission.

Our comments follow:

Zoning By-Law

1. Lot coverage calculations showing the percentage of buildings, percentage of pavement, and percentage of open space/landscaped need to be included in the plans. (§1.3.3.3.d.15)
2. Parking calculations need to be provided for the proposed use. (§1.3.3.3.d.16)

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Grafton's Regulations Governing Stormwater Management

3. GEI has reviewed the Stormwater Management Plan and has no issues relative to compliance with the Grafton Stormwater Management Standards.

Grafton Wetland Regulations

4. GEI has no issues relative to compliance with the Grafton Wetland Regulations except as noted in the following two comments.
5. Stormwater Basin #1 and Stormwater Basin #2 are proposed with interior slopes of 2H:1V; the regulations require a maximum embankment slope of 3H:1V. Whereas the stormwater basins are depressions in the ground rather than built-up earthen embankments, GEI defers to the Conservation Commission whether the proposed 2H:1V slopes are acceptable. (§1.V.B.5.h.(i))
6. At Stormwater Basin #2, the level spreader elevation (482.80 feet in the hydrology calculations) needs to be labeled. Based upon a nearby existing spot elevation of 483.4 feet, some minor grading may occur within the 25-foot wetland buffer. (§1.V.C.5.a)

Hydrology & MassDEP Stormwater Management Review

7. GEI reviewed the hydrology computations and found them to be in order except as noted in the following comment.
8. The orifice size for CB2 (OCS) is inconsistent between the HydroCAD computations and the construction detail provided on Sheet C501. The information needs to be consistent.
9. Compliance with MassDEP Stormwater Handbook is reasonable.

General Engineering

10. The title blocks of Sheets C100 through C400 indicate that the scale is 1"=20', however the scale bar and measured dimensions on the sheets are at a scale of approximately 1"=25.3'. The plotted scale on these plan sheets needs to be re-checked.
11. On Sheet C100, the lines for the erosion control barriers needs to be labeled or identified in the legend.
12. The existing conditions plan does not reflect the curb-line improvements at the intersection of Upton Street and South Street that were made in 2017. Nevertheless, the 2017 curb-line improvements don't have a negative impact on the proposed project.
13. GEI performed a cursory review of the traffic memorandum. GEI has no issues with information presented in the memorandum.

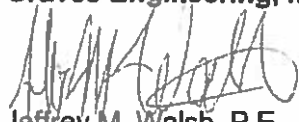
General Comments

14. The two HC ramps southwest of the building will have grades of approximately 7.8%. Per the Massachusetts Architectural Access Board regulations, the ramps will need to have handrails. Handrails were not shown on Sheet C200.

15. GEI did not review the architectural plans.

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,
Graves Engineering, Inc.

A handwritten signature in black ink, appearing to read 'Jeffrey M. Walsh', is written over the printed name.

Jeffrey M. Walsh, P.E.
Principal